MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 18 SEPTEMBER 2018

september

2018

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The background material 'Macroeconomic and financial market developments' is based on information available until 12 September 2018.

Article 3 (1) of the MNB Act (Act CXXXIX of 2013 on the Magyar Nemzeti Bank) defines achieving and maintaining price stability as the primary objective of the Magyar Nemzeti Bank. The MNB's supreme decision-making body is the Monetary Council. The Council convenes as required by circumstances, but at least twice a month, according to a pre-announced schedule. At the second scheduled meeting each month, members consider issues relevant to decisions on interest rates. Abridged minutes of the Council's rate-setting meetings are released regularly, before the next policy meeting takes place. As a summary of the analyses prepared by staff for the Monetary Council, the background material presents economic and financial market developments, as well as new information which has become available since the previous meeting.

The abridged minutes and the background materials to the minutes are available on the MNB's website at:
http://www.mnb.hu/en/monetary-policy/the-monetary-council/minutes

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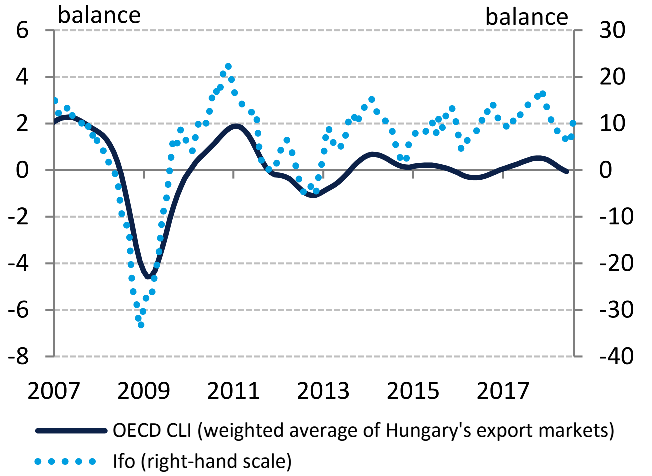
1. Macroeconomic developments

1.1. Global macroeconomic environment

In the second quarter of 2018, both the economic growth in the euro area and the GDP growth of the United States continued, but an increase in the regional differences was observed. According to the latest international forecasts, on the whole, the growth prospects of the EU and the euro area deteriorated in the first half of the year.

Chart 1: Business climate indices in Hungary's export markets



Source: OECD, Ifo

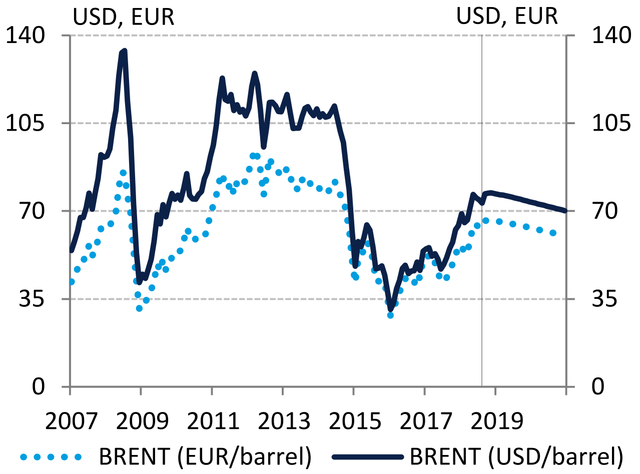
Growth in the global economy, and particularly in the euro area, continued in the second quarter of 2018. The US economy rose at the fastest rate observed since 2015, by 2.8 percent in annual terms and by 1 percent quarter on quarter, primarily supported by corporate investments and the upturn in household consumption. Due to the changes in the fiscal policy and the deepening of commercial tensions, the **indebtedness and vulnerability of the US economy** may once again come into the limelight.

Economic growth in the euro area continued in the second quarter, albeit at a slower rate than observed in the previous quarters. **The growth calculated on annual and quarter-on-quarter basis was 2.2 and 0.4 percent, respectively.** The growth in the euro area is also primarily attributable to investments and household consumption. In the second quarter, **the underlying business climate indices of the EU and other countries declined on the whole** (Chart 1). As a result of the deteriorating business climate attributable to the commercial tensions and due to the strengthening of the geopolitical and financial risks present in the global economy, **downside risks to growth continued to rise**. Looking ahead, external trade developments may be of key importance both for Europe and the entire global economy.

Based on the GDP data of the second quarter, the Central and Eastern European (CEE) region continued to record the fastest growth. The growth in the region was attributable in most of the countries to investments and rising household consumption. Looking ahead, the growth advantage of the CEE region may persist; however – similarly to the entirety of the global economy – downside risks (e.g. increase in external trade tensions, money market turbulences) substantially strengthened.

The growth of the EU economy is still surrounded by major risk, and thus **the balance of the risks remained in the negative range.** The already introduced and the anticipated **import duties** – due to the dominant weight of the United States – **may curb world economic growth, including that of Europe.** The exit of the United Kingdom from the EU and the increase in the uncertainty arising from the exit talks represent additional negative risk for the European Union's medium-term growth. Further identifiable negative risks are

Chart 2: World market prices of Brent crude oil



Source: Bloomberg

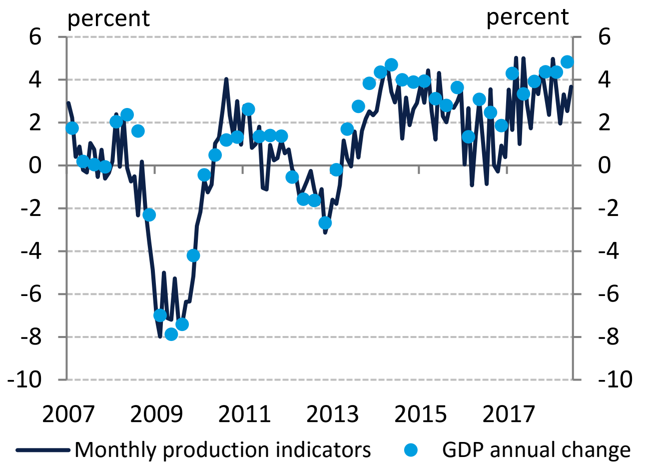
the chance of increasing money market turbulences due the Chinese slowdown, the emergence of a debt and exchange rate crisis, the high government debt in Italy and the financial and real economy risks stemming from the expected fiscal policy. On the whole, the risks threatening the global economy strengthened to a negative direction.

Global inflation and underlying inflation in the euro area both decreased in the past month. In August – based on the preliminary data – euro area inflation slightly decreased, primarily reflecting the fall in energy and industrial goods prices. The world market price of crude oil, showing substantial volatility in the past month, was around USD 72 on average (Chart 2). The volatility of oil prices in the past period is explained by several factors, of which the most important ones are the geopolitical tensions in the Middle East; the crisis in Venezuela; the growth in the crude oil production of OPEC from July; the greater than expected decline in US crude oil reserves and the rise in production to a historical high; as well as the US sanctions affecting Iran and the increasing trade tensions vis-à-vis China. World market prices of industrial commodities decreased, while those of unprocessed food moderately rose in August.

1.2. Domestic real economy developments

According to the HCSO's detailed data release, in 2018 Q2 Hungary's GDP grew by 4.8 percent year on year. The resilient economic growth is also evidenced by the available monthly production indicators. In 2018 Q2 the unemployment rate decreased to 3.6 percent. The tightness indicators calculated from the ratio of vacancies and unemployed persons indicate the continued tightening of the labour market environment.

Chart 3: Monthly production indicators and GDP growth



Note: Weighted average of monthly production indicators (industrial output, construction output and retail sales). The weights are derived from regression explaining GDP growth.
Source: MNB calculation based on HCSO data

1.2.1 Economic growth

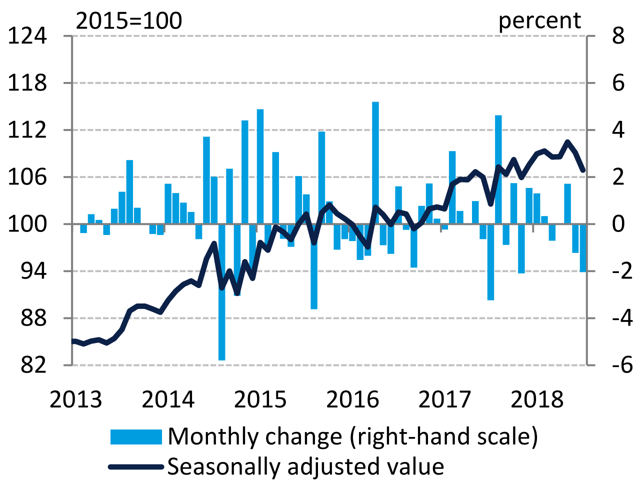
According to the data release by the HCSO, in the second quarter of 2018, Hungary's gross domestic product grew at a rate of 4.8 percent year on year. Based on the seasonally and working-day adjusted data, Hungary's GDP rose by 1.0 percent quarter on quarter. On the output side market services were the key drivers of growth, while on the expenditure side growth was mostly supported by investments (Chart 3). In addition, household consumption also made substantial contribution to growth. Net exports and the change in inventories moderately curbed GDP growth.

Based on the available monthly production indicators, vigorous growth in GDP may have continued in the third quarter of 2018 as well. In July 2018**, industrial output was up 6.2 percent** year on year, while production **declined by 2.0 percent compared to the previous month** (Chart 4). In July, the working-day adjusted index exceeded that of last year by 4.3 percent. **With the exception of vehicle industry, the output of all manufacturing subsectors rose** year on year. The output of vehicle manufacturing, representing a considerable weight, declined, while the resilient growth in the chemical and metal industry output continued. **The rise in industrial sales was supported primarily by the increase in domestic sales.** Compared to the beginning of the year, forward-looking indicators typically declined, but in August some of the indicators reflected correction.

Expressed in euro terms, **the value of exports and imports was up by 11.4 and by 10.6 percent,** respectively, year on year in July 2018, and thus trade surplus increased by EUR 91 million. **In June 2018, the terms of trade have deteriorated year on year. The deterioration in the terms of trade was primarily caused by the rise in the relative price of mineral fuels.**

In July 2018, the volume of construction output was up by 38.0 percent year on year, while output increased by 4.6 percent compared to the previous month. Output increased both in the case of buildings and other structures. In the case of the construction of buildings, the growth in production was attributable to educational, industrial, commercial and residential buildings. Owing to the government investments, primarily to infrastructure developments (road, railway, public utility), construction of other buildings continued to

Chart 4: Development in industrial production

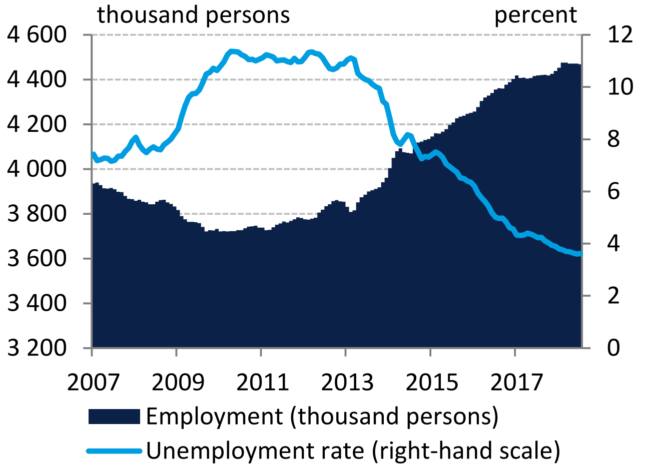


Source: MNB calculation based on HCSO data

rise. The volume of new contracts materially rose year on year; within that the volume of contracts for buildings slightly decreased, while those for other structures considerably increased compared the value registered a year ago. In the case of other buildings, the high-value contracts were concluded primarily for the improvement of the transport infrastructure and telecommunication networks. The month-end volume of the construction companies' contract portfolio still substantially exceeds that of last year, which primarily reflects the housing market contracts committed until 2019 and the already committed EU funds.

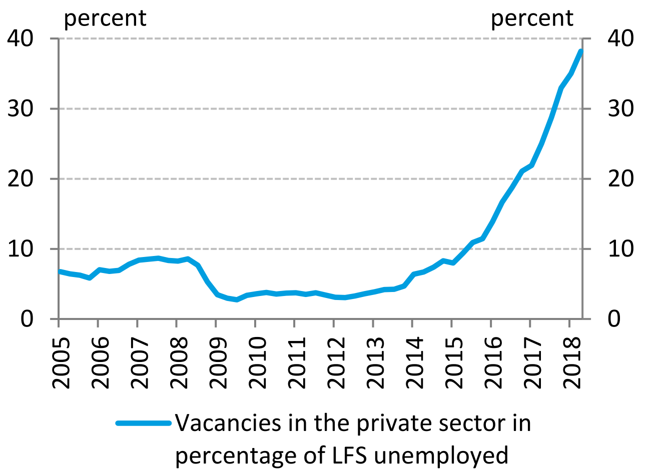
In July, according to the preliminary data, **retail sales volume was up 5.4 percent year on year, based on the seasonally unadjusted data** (the calendar effect had no impact on the sales data). In the second quarter, retail sales volume rose by 5.8 percent also after seasonal adjustment. In the past months turnover increased in a wide range of products. Substantial growth in the turnover of non-food consumer durables continued, while the rise in food sales somewhat fell short of the average of the previous period. The change in the domestic retail turnover is outstanding compared to both the EU and the region; compared to the preliminary Hungarian figures, similar growth rate was registered only in Poland and Lithuania.

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Development of labour market tightness indicator



Note: Quarterly data.
Source: National Employment Service, HCSO

1.2.2. Employment

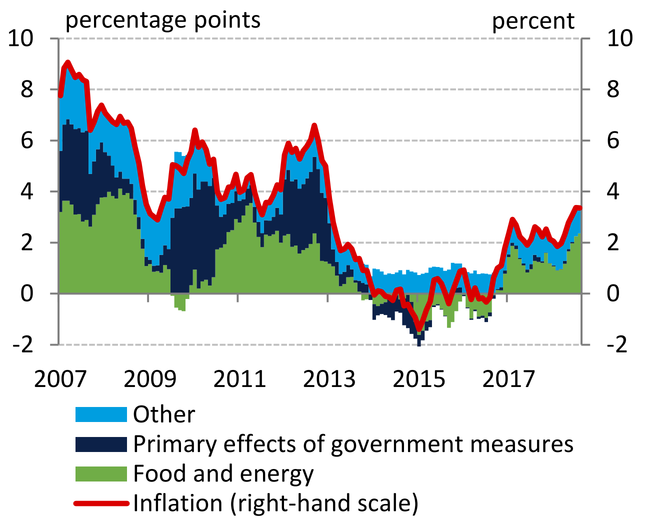
According to the seasonally adjusted data of the Labour Force Survey (seasonally adjusted) data, in the second quarter of 2018 the labour force participation rate moderately increased. Total employment rose, contributed to by the increase in both public and private sector employment. Within the public sector, the decrease in the number of participants in public work programmes continued, while employment other than public work increased. The rise in the private sector employment was mainly attributable to the employment growth in in construction, while employment in manufacturing and in the marker services sector did not change significantly. The number of workers employed abroad rose in the second quarter. In parallel with the growth in employment, unemployment decreased further, with **the unemployment rate dropping to 3.6 percent** (Chart 5).

In the second quarter of 2018, based on the number of vacancies, corporate labour demand continued to increase both in manufacturing and the market services sector. The **tightness indicators** calculated from the ratio of vacancies and unemployed persons **indicate the continued tightening of the labour market environment** (Chart 6).

1.3. Inflation and wages

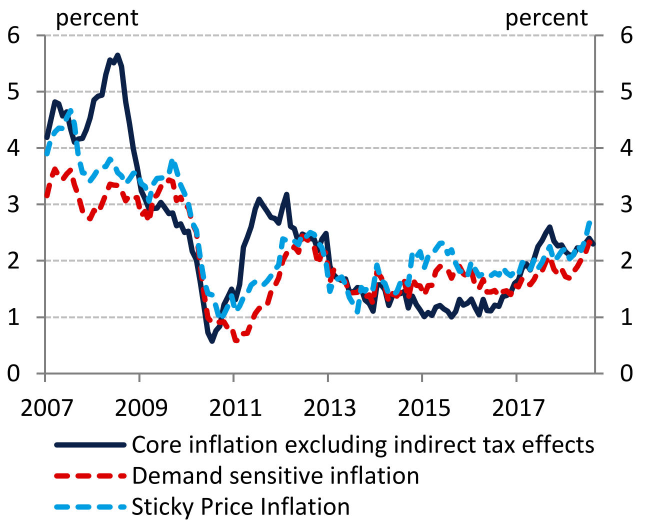
In August 2018 inflation was 3.4 percent, while both core inflation and core inflation excluding indirect taxes stood at 2.3 percent. In 2018 Q2, gross average wage in the private sector rose by 10.3 percent year on year. In addition to the historically tight labour market environment determining the underlying wage developments, the continued strong wage dynamics was supported by this year's raising of the minimum wage and guaranteed wage minimum by 8 and 12 percent, respectively. At the same time, the 2.5 percentage point decline in the social contribution tax reduced the corporations' wage costs.

Chart 7: Decomposition of inflation



Source: MNB calculation based on HCSO data

Chart 8: Measures of underlying inflation indicators



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

In 2018 Q2, gross average wage in the private sector rose by 10.3 percent year on year. In addition to the historically tight labour market environment determining the underlying wage developments, the continued strong wage dynamics **was supported** by this year's **raising of the minimum wage and guaranteed wage minimum by 8 and 12 percent**, respectively, and **the 2.5 percentage point decline in the social contribution tax also supported corporate wage developments.** In May, the monthly dynamics of regular average wage was much stronger than the usual seasonality, but it showed adjustment in June. Wage dynamics in sectors with below-average wage were still higher than in sectors with above-average wage.

1.3.2. Inflation developments

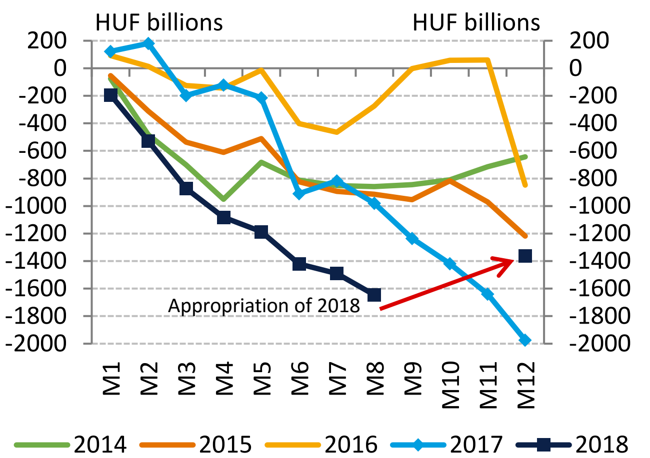
In August 2018, year-on-year inflation was 3.4 percent, while core inflation and core inflation excluding indirect taxes both stood at 2.3 percent (Chart 7). Inflation did not change, while core inflation fell by 0.2 percentage point relative to the previous month. The decline in core inflation was offset by the rise in the volatile prices of unprocessed food, and thus inflation has not changed compared to the previous month.

Underlying inflation indicators did not change compared to the previous month (Chart 8). In June 2018, agricultural producer prices have not changed in annual terms, while the domestic sales prices of the consumer goods sectors increased by 1.3 percent in July.

1.4. Fiscal developments

In August 2018, the central sub-sector of the general government closed with a deficit of HUF 155 billion, and thus the current year's cumulated deficit amounted to HUF 1,646 billion at the end of August. The deficit of the first eight months is above the year-on-year value and also exceeds the deficit target of the 2018 Budget Act.

Chart 9: Intra-year cumulative cash balance of the central government budget



Source: Budget Act of 2018, Hungarian State Treasury

In August 2018, the **central sub-sector of the general government** closed with a deficit of HUF 155 billion, and thus the current year's cumulated deficit amounted to HUF 1,646 billion at the end of August. The deficit of the first eight months is above the year-on-year value and also exceeds the deficit target of the 2018 Budget Act (Chart 9).The higher value of the cumulated government cash deficit compared to that of last year is mostly attributable to the pre-financing of EU transfers, the higher expenditures of the budgetary organisations and the absence of last year's one-off items (tax credit for growth, land sales).

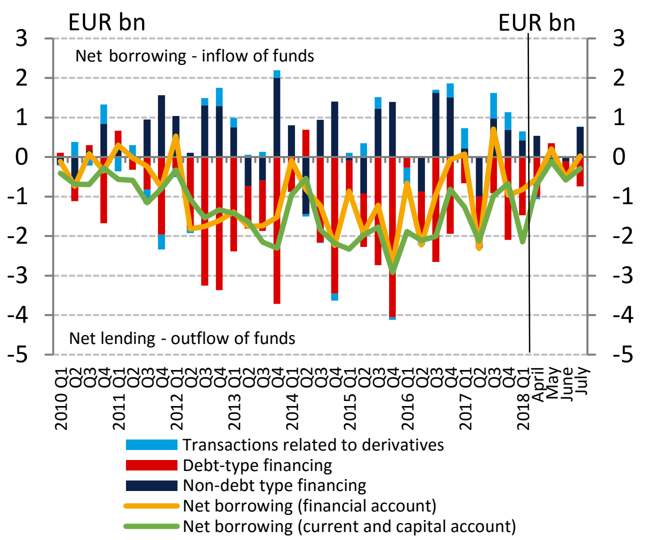
The **revenues of the central sub-sector** were down by HUF 117 billion year on year, which is attributable to the lower VAT revenues resulting from the change in the reimbursement rules, the lower corporate income tax due to the absence of the growth tax credit and the smaller amount of EU transfers. Wage-related revenues rose in August by HUF 50 billion year on year. Thus, the cumulated growth represents a surplus revenue of more than HUF 350 billion compared to the first eight months of last year, despite the 2.5 percentage point cut of the social contribution tax rate at the beginning of this year.

The **expenditures of the central sub-sector** fell short of those in August 2017 by HUF 125 billion, which is mostly attributable to the payment of EU transfers below the year-on-year value by HUF 155 billion.

1.5. External balance developments

In July, net lending of the economy and the current account both decreased. According to the financial account data, in July under major net FDI inflow, the net external debt of the economy, based on transactions, also substantially declined.

Chart 10: Structure of net lending (unadjusted transactions)



Note: Positive values indicate net borrowing (inflow of funds), while negative values indicate net lending (outflow of funds).
Source: MNB

In July, net lending of the economy and the current account both decreased. As a result of the decrease in external trade balance, net lending fell to EUR 290 million, while the current account surplus dropped to EUR 60 million during the month. The decline in the goods and services balance was attributable to the materially declining goods balance resulting from the stoppage in car manufacturing during the month, the effect of which was, however, mitigated by the improvement in the services balance. The effect of the decline in the external trade balance was partially offset by the significant improvement in the transfer balance, which was attributable to the rising absorption of EU transfers. The income balance deficit did not change during the month (Chart 10).

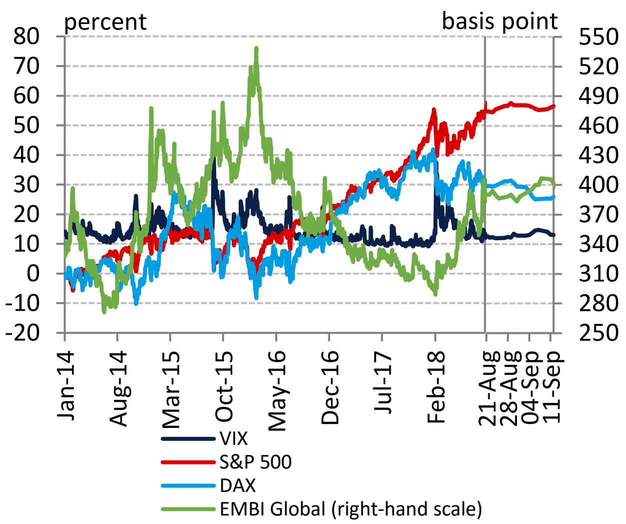
According to the financial account data, in July under significant net FDI inflow, the net external debt of the economy, based on transactions, also substantially declined. The net FDI inflow of EUR 780 million was primarily linked to the growth in reinvested earnings. Based on the monthly transactions, the decline of more than EUR 740 million in **net external debt** was mostly attributable to the decrease in the net external debt of the **general government**, also supported by the decline in non-residents' government securities holding and the rise in the receivables from EU. By contrast, **banks**' net external debt rose by almost EUR 260 million in July, caused by the growth in liabilities in excess of the increase in external assets. Under the decline in trade credit, the net external debt of the **corporate sector** also declined in the period under review.

2. Financial markets

2.1. International financial markets

Global investor sentiment varied since the last interest rate decision, mostly due to the new information related to the trade war and the turbulences observed in certain vulnerable emerging countries. The VIX index, measuring stock exchange volatility, rose minimally, to 13 percent. While the US stock exchanges rose, the rest of the developed stock exchanges and the majority of the emerging stock market indices declined. In the emerging government securities markets the EMBI Global bond spread rose by 13 basis points, which fell short of the growth registered in the previous month, but still signals risk aversion in respect of the emerging markets. In the foreign exchange markets, the dollar depreciated against most of the developed currencies. Oil prices increased, and thus the Brent and WTI rose close to USD 79 and USD 70, respectively.

Chart 11: Developed market equity indices, the VIX index (left-hand scale) and the EMBI Global Index (right-hand scale)



Source: Bloomberg

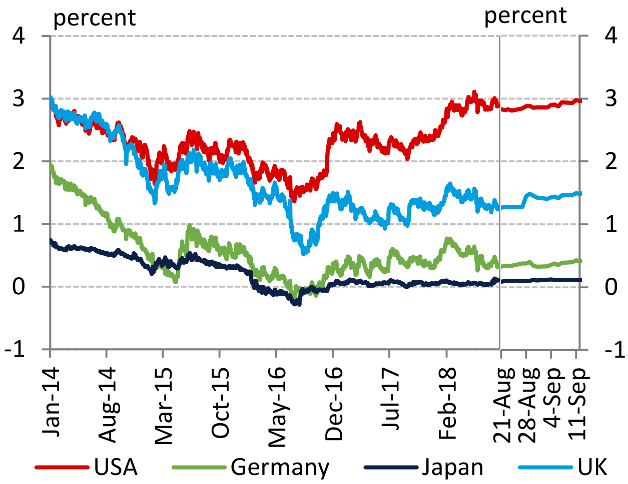
Global investor sentiment varied since the previous interest rate decision. Risk aversion was greatly attributable to the developments in trade policy, as well as to the turbulence observed in certain vulnerable emerging countries, particularly in Turkey and Argentine. In the first half of the period under review, the VIX index moved in a narrow band, followed by a moderate rise at the beginning of September, while the MOVE index, measuring the volatility of the US bond market, fell below 48 basis points (Chart 11).

While the US stock exchanges moderately rose, most of the developed and emerging stock market indices fell. The key European equity indices fell by 1-3 percent, while the Chinese stock exchange index declined 1.8 percent. On the whole, the developed market MSCI index stagnated, while the MSCI index measuring the performance of the emerging market decreased by 3.8 percent compared to the start of the period.

Developed market long-term yields increased, while the emerging market spread moderately rose. On the developed markets, the US long-term yield rose by 14 basis points to almost 3 percent, while the German yield increased by 8 basis points close to the level of 0.4 percent. Due to the deteriorating sentiment observed in the emerging markets, the EMBI Global rose by 13 basis points during the period under review. The steadily high level of the index indicates that international investors are still worried about the emerging markets. On the whole, emerging markets were characterised by outflow of capital from the bond funds (Chart 12).

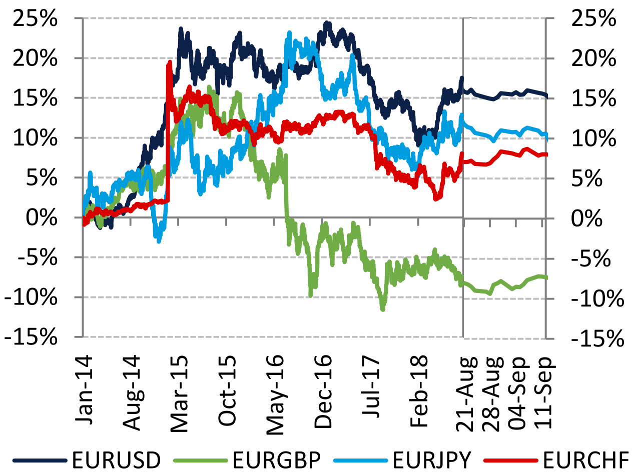
Expectations with regard to an interest rate hike in the USA and in the euro area have not changed significantly. In the case of Fed, according to the market pricing, there is a probability of 2 interest rate hikes this year, in September and December. The probability of the interest rate increase in September, based on the market pricings, is almost 100 percent. In the case of ECB, interest rate expectations

Chart 12: Yields on developed market long-term bonds



Source: Bloomberg

Chart 13: Developed market FX exchange rates



Note: Positive values indicate the strengthening of the variable (second) currency.
Source: Reuters

have not changed significantly; the first tightening is still expected to take place in the middle of next year.

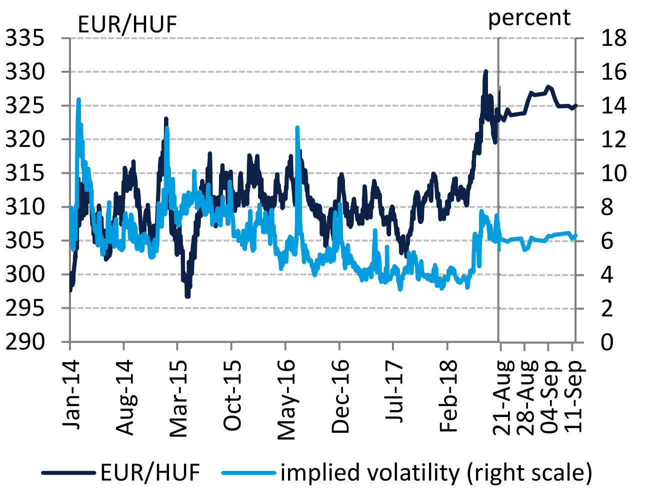
During the last one month, the dollar depreciated against most of the developed currencies. Against the euro, Swiss franc and British pound it recorded a depreciation of 0.5, almost 1.5 and 1.2 percent, respectively. On the other hand, it appreciated against the Japanese yen by 0.8 percent. **The emerging currencies depreciated against the dollar;** the Argentine peso performed particularly poorly, depreciating by almost 30 percent, while the Turkish lira depreciated by more than 4 percent against the dollar (Chart 13).

Oil prices rose during last month. While the Brent price rose by 5 percent above USD 79, the WTI price rose close to USD 70 after a growth of nearly 6 percent. At the end of the period, quotes were pushed upward by concerns related to oil supply.

2.2. Developments in domestic money market indicators

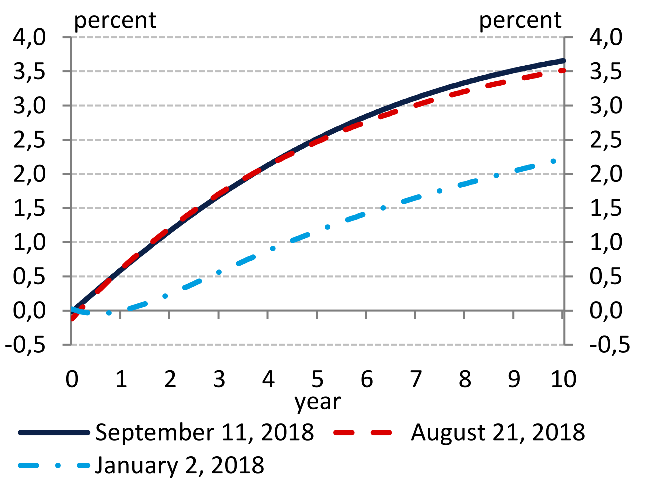
After the tranquillity characterising the summer period, in parallel with international deterioration in sentiment, observed from the end of August, on the whole the forint exchange rate moderately depreciated since the last interest rate decision. It was stable in the first half of the period, followed by a depreciation of 1.5 percent, but at the end of the period it once again appreciated against the euro. The 3-month BUBOR rose slightly, by 2 basis points. The short end of the government securities yield curve has not changed materially, while the long end over 5-year slightly shifted upward, and thus the curve became steeper. Non-residents' forint government securities holding rose and their share reached 22 percent.

Chart 14: EUR/HUF exchange rate and the implied volatility of exchange rate expectations



Source: Bloomberg

Chart 15: Shifts in the spot government yield curve



Source: MNB, Reuters

At the beginning of the period, the forint exchange rate against the euro was around 324, then – in parallel with the deterioration in international sentiment – it depreciated by roughly 1.5 percent. However, from the beginning of September it adjusted, appreciating by almost one percent. On the whole, since the last interest rate decision, the domestic currency depreciated moderately, by half percent. Of the currencies of the region, the Polish zloty, similarly to the forint, depreciated from the end of August, followed by an adjustment, and thus on the whole in recorded a moderate depreciation. Taken together, the Polish zloty showed a depreciation of 0.3 percent, while the Romanian leu and Czech koruna moderately appreciated. The volatility of the forint exchange rate was stable in most of the period, after the moderate rise observed in the summer months (Chart 14).

The 3-month BUBOR, relevant for the monetary policy transmission, first declined from 19 basis points by 2 basis points to 17 basis points, followed by a rise to 21 basis points in the second half of the period. **The short section of the government yield curve has not changed materially, while the over 5-year section thereof increased by 10-15 basis points**, thereby making the yield curve steeper (Chart 15).

Forint government securities auctions were characterised by strong demand, and thus the Government Debt Management Agency accepted higher than the announced quantity in several cases. At the 3-month auctions, the average auction yield remained around 0.1 percent until the end of the period. At the 3-month discount Treasury bill auctions, in the first half of the period the Government Debt Management Agency announced 40-40 billion, then 50 billion, and in the latter case it increased the accepted volume materially, by 25 billion. At the 12-month discount Treasury bill auctions the average yield rose by 3-6 basis points after the interest rate decision, while the bid-to-cover ratio was medium. In the case of the 3- and 5-year securities demand was well above the announced quantity, and thus in both cases it was augmented. The average yield in the case of the 3-year securities fell by 11 basis points to 1.63 percent, while at the 5-year securities by 15 basis points to

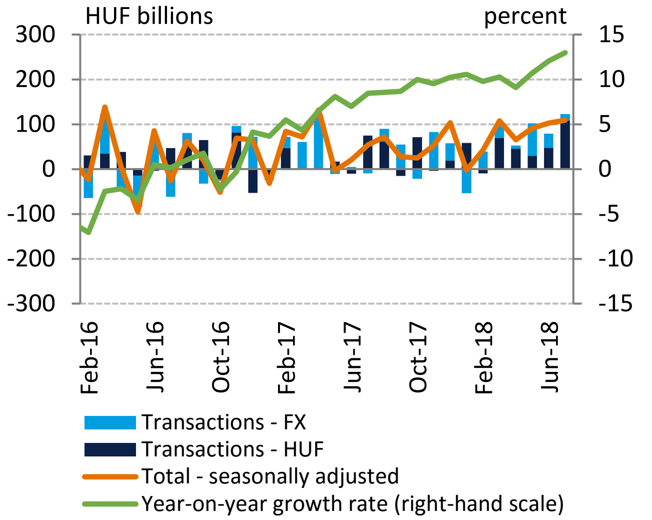
2.8 per cent. Demand for the 10-year securities was also strong, and thus the Government Debt Management Agency increased the issued volume by 2.5 billion compared to the initially announced 15 billion. The average yield declined by 8 basis points to 3.41 percent.

In line with the trends observed in the region, the 5-year Hungarian CDS spread decreased by 2 basis points and finally closed the period at 84 basis points.

3. Trends in lending

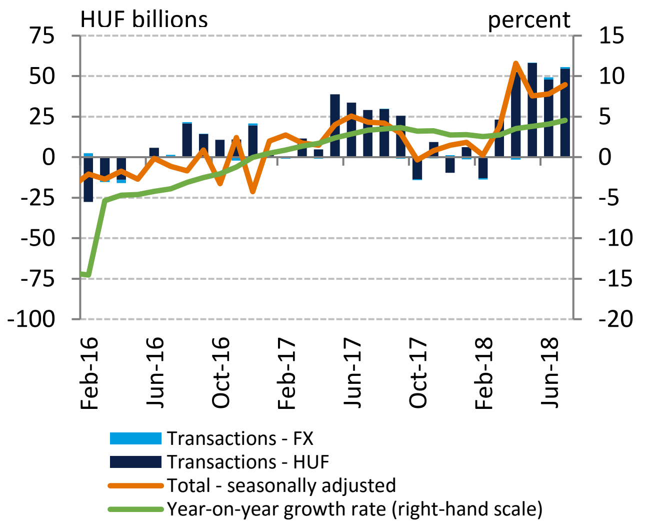
In July, the outstanding corporate loans of credit institutions rose by HUF 122 billion due to transactions, which is equivalent to an increase of HUF 109 billion on a seasonally adjusted basis. The outstanding loans of credit institutions to households rose by HUF 56 billion as a result of transactions, which represents a growth of HUF 45 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 4.5 percent in July 2018.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

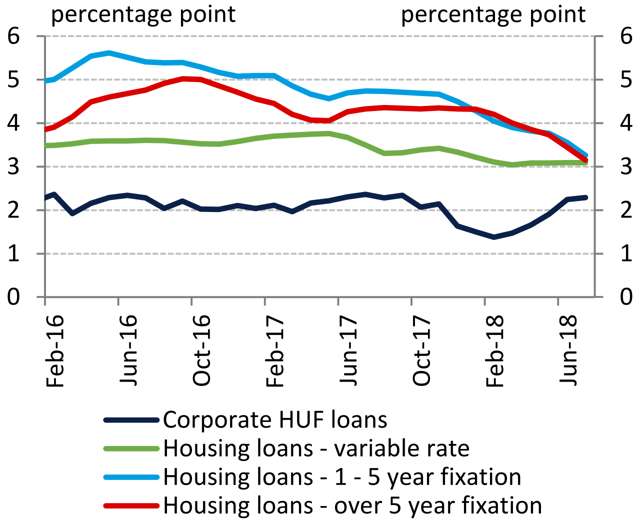


Source: MNB

In July, the outstanding corporate loans of credit institutions rose by HUF 122 billion due to transactions, which is equivalent to an increase of HUF 109 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 108 billion and HUF 14 billion, respectively. In July 2018, corporate lending rose by 13 percent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 205 billion during the month. Accordingly, the gross amount of new loans in July was up 18 percent in annual terms.

The outstanding loans of credit institutions to households rose by HUF 56 billion as a result of transactions, which represents a growth of HUF 45 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 4.5 percent in July 2018 (Chart 17). The value of new contracts concluded during the month was HUF 151 billion, and thus in annual terms it registered a growth of 31 percent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 40 and 49 percent, respectively. Since September 2017, the Certified Consumer-friendly Housing Loan products already contributed by HUF 177 billion to the growth in lending for housing purposes in a sounder structure, and half of the fixed-rate loans concluded during the month were already certified loans.

Chart 18: Development of corporate and household credit spreads



Note: In the case of corporate forint loans, the spread over the 3-month BUBOR. In the case of housing loans with variable interest or interest fixed for 1 year at the most, the 3-month BUBOR, while in the case of housing loans fixed for over one year, the APR-based margin above the relevant IRS.
Source: MNB

The smoothed interest rate spread of forint corporate loans rose by 10 basis points to 2.3 percentage points in July (Chart 18). However, the spread on small-amount market loans – typically taken by SMEs – exceeds the average of the other Visegrád countries by 80 basis points. The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) dropped by 25 basis points compared to September 2017, to 3.1 percentage points. In the case of loans the interest rate of which is fixed for 5 years at the most, this value dropped by 145 basis points to 3.25 percentage points, while in the case of loans fixed for more than 5 years, it fell by 120 basis points to 3.15 percentage points. In a regional comparison, the problem of high spreads affects primarily the market of long-term fixed-rate transactions.